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September 10, 1999

California State Water Resources Control Board
Division of Water Quality
P.O. Box 944213
Sacramento, CA 94244-2130

RE: DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) FOR GENERAL WASTE DISCHARGE REQUIREMENTS FOR BIOSOLIDS LAND APPLICATION

Gentlemen:

The California Grape & Tree Fruit League, henceforth "League," representing over 80 percent of the volume of table grape and deciduous tree fruit grown, packed and shipped in California, wishes to provide its comments regarding the draft Environmental Impact Report (EIR) for Biosolids Land Application as prepared for the California State Water Resources Control Board.

Seventy percent of the League's members live and grow their fruit commodities within the San Joaquin Valley. As such, they have heard much about the use of biosolids on agricultural land. Our organization, representing the production and shipping industries, was asked to look into the use of biosolid use, its benefits and pitfalls, and to provide some direction on this issue.

The League now has growing concern regarding several aspects of biosolid use on agricultural land and those concerns have not been alleviated even after reading the draft EIR. There appears to be a patchwork of regulating agencies providing oversight on this issue. 53-1

The draft EIR reports that horticultural use of Class A biosolids "is treated sufficiently that pathogens are essentially eliminated." "Essentially eliminated" is not 100 percent eliminated. Therefore, what research has been completed that examines the portion of pathogens that are not completely eliminated? 53-2

Furthermore, in our minds, part 503 regulations relative to the use of Class B biosolids appear to be too lenient. Specifically, the discharge prohibitions of the General Order potentially leave too much flexibility and are subject to interpretation. 53-3

Some of our grower members have been led to believe that application of this product was encouraging "organic" practices. This could not be further from the truth. There is no body of evidence that shows that biosolids are organic, even when mixed with cow manure or green waste. 53-4

Likewise, no report or document has adequately addressed heavy metal loading in land nor potential uptake of heavy metals in plants. Some growers in Kern County have applied biosolids to nonedible crops, which would appear innocuous on the surface – what would it matter if a cotton plant were to uptake heavy metals? – yet, no one can answer the question as to what would happen if that grower were to sell his land to someone who wished to plant an edible food crop. If restrictions were to be placed on what could be grown on that land, you have now limited the ultimate use of that land. Who is going to regulate what commodities can be planted where, and what have we not yet learned about long-term viability of that land with heavy metal loading? Additionally, should we not have concerns regarding potential groundwater contamination or Proposition 65 issues? 53-5 53-6

Recently, I attended an International Symposium that was held in Florida regarding alternatives to methyl bromide, a fumigant used to control a variety of plant pests and diseases. Over 200 research papers were presented at this Symposium. One researcher from California University in Pennsylvania researched plant fertility as a means of overcoming plant stress and damage by nematodes, a soil pest. In his experiment, the researcher used locally treated and available biosolids. While his research showed biosolids to be a potential alternative to soil fumigation by methyl bromide, his research also showed that at the rate of six tons per acre, he would overload the soil with heavy metal toxins in 20 years. Application of ten tons per acre would overload the soil in approximately 15 years. Currently, there are some growers in Kern County that have applied 15 tons per acre of biosolids. How quickly will the soil be contaminated with heavy metals in Kern County? There does not appear to be sufficient research on the long-term applications and their effect on heavy metal concentration. 53-7

Other research has shown that biosolids contain significant amounts of dangerous and potentially deadly human pathogens, such as e-coli and e-coli 0157:H7. The draft EIR dismisses this concern as "speculative" (page ES-17). The League does not believe this should be treated as speculative. 53-8

Regarding loss of crop value as a result of public perception, the draft EIR states "the potential economic effects are not discussed because they are considered speculative and would not result in a physical change in the environment." I would submit that based on polling data recently completed by the Alliance for Food and Fiber, public perception is negative toward biosolids. Public perception does drive the purchase and acceptance of commodities produced on land treated with biosolids. 53-9

Until several areas are properly addressed in the EIR and further research is conducted, the California Grape & Tree Fruit League must oppose the use of biosolids on agricultural land. 53-10

Sincerely,

Richard Matoian

Richard Matoian
President

53-1. Currently, several agencies can—and, depending on the locality in question, do—regulate biosolids land application sites. Those agencies can include EPA, the RWQCBs, and local county authorities. Under the proposed GO, however, the SWRCB would have ultimate responsibility for oversight of and compliance with the requirements of the GO. See also Master Response 1 regarding the funding and oversight relationship between the SWRCB and the RWQCBs.

53-2. Charles A. Sorber and Barbara E. Moore in association with the University of Texas at Austin performed a literature review on this matter entitled Survival and Transport of Pathogens in Sludge-Amended Soil (Sorber and Moore 1987). The subject literature review cites more than 150 pathogen-related studies. EPA's requirements in the Part 503 regulations, which form the baseline requirements for the proposed project, are partially based on that literature review. Also, those studies cited in Chapter 5, "Public Health", of the draft EIR and Appendix B of this final EIR (a revised version of Appendix E, "Public Health Technical Appendix", of the draft EIR) are useful sources of information regarding pathogen survival and transport.

53-3. Although the specific Class B restrictions are taken mainly from the Part 503 regulations, other prohibitions, discharge specifications, and provisions further restrict land applications. These additional requirements reflect the cautious approach taken by SWRCB staff to biosolids land application under the proposed GO. Many of the discharge prohibitions in the GO have been changed to be more quantitative since the draft EIR was prepared. See Master Response 9 (application restrictions to limit wind-blown dust) and responses to comments 11-14 (more specific requirements for conditional use permits) and 21-80 (prohibitions on application in areas of gully erosion or washout).

53-4. The commenter's discussion regarding the perceptions of biosolids being or not being an organic product is noted. The GO and the EIR make no claims regarding the land application of biosolids as an organic practice. No response is necessary.

53-5. See response to comment 21-57.

53-6. See Master Responses 13, 14, 15, and 16.

53-7. It is established that the metals contained in biosolids will accumulate in the soil column. With this in mind, EPA established risk-based limits for those pollutants shown by its studies to be of concern. See responses to comments 50-11 and 50-13.

53-8. The draft EIR addressed issues regarding the human-affecting pathogens, using the currently available knowledge on disease types and their reported occurrence in California. Revisions have been made to the section addressing public health (see Appendix B of this final EIR). However, no reports exist that identify documented instances of disease being

contracted by humans from biosolids applications. See Master Response 15 regarding groundwater monitoring considerations with regard to pathogens.

53-9. The commenter's opinion regarding the relationship between public perception, price, and demand is noted. Section 15358 of the State CEQA Guidelines states that "Effects analyzed under CEQA must be related to a physical change." Any discussion of economic consequences related to public perception of biosolids use would be speculative because public perception and its effects on the market are based on many unpredictable variables. Although the proposed GO could have some undefined economic effect, the EIR is an analysis of environmental effects and is not the appropriate venue for analyzing strictly economic factors of the proposed project. See also the response to comment 11-6.

53-10. The commenter's opposition to the land application of biosolids is noted. No response is necessary.